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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,720	05/23/2001	Eric W. Nielsen	00-357	1496
7590	01/15/2004		EXAMINER	
W. Bryan McPherson III Caterpillar Inc. Intellectual Property Department, AB6490 100 N.E. Adams Street Peoria, IL 61629-6490			NARAYANASWAMY, SINDYA	
			ART UNIT	PAPER NUMBER
			2174	3
DATE MAILED: 01/15/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/863,720	NIELSEN ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Sindya Narayanaswamy	2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 02 February 2003.
- 2a) This action is **FINAL**.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-24 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
 a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.                  4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)
- 6) Other:

## DETAILED ACTION

1. Claims 1-24 are presented for examination.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 10-15, and 18-24 are rejected under 35 USC 102(b) as being anticipated by Gobot et al (hereinafter Gobot), “The Felt System: User’s Guide and Reference Manual.”

4. As per claims 1 and 10, Gobat teaches the method and apparatus of presenting a graphical user interface for a finite element analysis application on an electronic display device, comprising: launching a parent graphics window on the electronic display device for displaying an image (*velvet window*); and attaching a property input window to the parent graphics window for displaying and manipulating settings and attributes of an entity selected within the parent graphics window (*drawing area*), wherein the first interface element of the property input window includes at least one of the active entity name/ID field and entity graphic button and interval count field and interval size field and interval set field and mesh scheme field and smooth scheme field (*main control area of operations*) (Fig. 7.1; page 77, lines 1-11).

5. As per claims 2 and 11 Gobat teaches the method and apparatus further comprising attaching a task window to the parent graphics window for geometry creation, manipulation, and

meshing of the entity within the parent graphics window, wherein a first interface element of the task window having a first tab identifier includes at least one of a first iconic button (*toggle button*), adapted to providing creation capabilities of at least one of a vertex entity and curve entity and surface entity and volume entity and brick entity and sphere entity and cylinder entity and pyramid entity and torus entity and frustum entity (Fig. 7.11; page 57, lines 6-page 58, line 6; page 84, lines 22-30), and a second iconic button adapted to providing modification capabilities of entities by at least one of webcutting and imprinting and cleaning and combining and Boolean operation and healing and positioning and scaling and separating and splitting and copying and merging and tweaking (page 81, lines 16-24).

6. As per claims 3 and 12, Gobot teaches the method and apparatus comprising attaching a textual input window to the parent graphics window wherein the first interface element of the textual input window includes a command line for entry of textual commands for the finite element analysis application execution (*through a keyboard shortcut*) (page 79, paragraph 4, lines 1-4; page 100, lines 11-21).

7. As per claims 4 and 13, Gobot teaches the method comprising attaching an entity tree window to the parent graphics window for displaying a graphical hierarchical representation of the parent child relationship of the entity selected within the graphics window or the entity tree window, wherein the first interface element of the entity tree window includes parent and child entity names/IDs, ID icons, and mesh status check boxes (page 118, paragraph 2, lines 1-5; page 80, paragraph 1, lines 7-10).

8. As per claims 5 and 14, Gobot teaches the method comprising attaching a textual output window to the parent graphics window wherein the first interface element of the textual output window includes an output line having textual feedback of activity executed by the finite element analysis application (page 90, paragraph 3, lines 8-12).
9. As per claims 6 and 15, Gobot teaches the method wherein the task window includes an advanced selection dialogue interface for selection of the entity in the graphics window that is particularly difficult to select yet is required for finite element analysis application execution and wherein the advanced selection dialogue interface includes a list box for displaying a current list of at least one entity available for a particular FEA application command, and a required-entity field for displaying the number and type of the entity required for finite element analysis application execution (*selecting solve options to analyze from solutions menu*) (page 1104, paragraph 1, line 1-paragraph 3, line 5).
10. As per claims 18-20 and 22-24 they are similar in scope to claims 1-6 and 10-15, but include a tabbed-based menuing system on an electronic display device. Gobot teaches the inclusion of a tabbed-based menuing system (tabular menu display) (Fig. 7.1).
11. As per claim 21, it is the computer readable medium claim of claim 18 and is rejected on the same basis.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 7, 8, 16 and 17 are rejected under 35 USC 103(a) in view of Gobot et al (hereinafter Gobot), "The Felt System: User's Guide and Reference Manual."

14. As per claims 7 and 16, Gobot does not specifically teach the method and apparatus as in claims 1 and 10 comprising outputting a filter picking dialog interface window from the task window for filtering entities to parse out entities that match or do not match the entity characteristics, wherein the filter picking dialog interface window includes a filter-criteria field for including or excluding filtered entities and performing specified actions on the including or excluding filtered entities, and a register list box for listing at least one registered filter for limiting subsequent selection operations in the graphics window to those that meet the filter criteria. However, official notice is taken that filtering is well known in the art therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gobot's method and apparatus to include a means for outputting a filter for filtering entities to parse out entities in order to eliminate entities that were not correctly entered or wrong.

15. As per claims 8 and 17, Gobot does not specifically teach the method and apparatus as in claims 1 and 10 wherein the registered filter is deactivated so as to not limit the subsequent selection operations in the graphics window, while remaining a registered filter in the filter picking dialog interface window. However, official notice is taken that deactivating a filter is well known in the art therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gobot's method and apparatus to include a means for deactivating a filter in order to allow all entities through, including entities that may have accidentally been filtered.

***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a. "Method and Apparatus For Representing Data Dependencies In Software Modeling Systems," Bardasz et al. – *3-D modeling*

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sindya Narayanaswamy whose telephone number is (703) 305-8473. The examiner can normally be reached on 8 am to 5 pm, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (703) 308-0640. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-5404.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9000.

December 10, 2003

Sindya Narayanaswamy

Application/Control Number: 09/863,720  
Art Unit: 2174

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